North American Seasonal Fire Assessment and Outlook

National Interagency Fire Center ● Natural Resources Canada ● Servicio Meteorológico Nacional
United States **Canada** **Mexico**

Outlook Period May, June, and July 2020

Issued 08 May 2020

Executive Summary

Fire activity remained light in April in the United States. Southern Area received the most reports of wildfire occurrence followed by the Great Basin. The Southwest began to see a slight increase in activity late in the month. Drier than average conditions developed along the Mexican Border and across the Pacific Northwest as both areas received less than 25% of average precipitation. Great improvement was observed across Southern California and far southwestern Nevada where precipitation amounts were nearly 800% of normal during the first half of the month. Florida and South Texas also experienced gradual improvement. Temperatures were generally near to below average except along the West Coast and across the Deep South where they were above average. The transition toward summer began in late April as high pressure ridge events over the West became more frequent.

Mountain snowpack remained above average on the Continental Divide, Canadian Border, and in the Alaskan Interior. It was below average across the High Sierra, Southern Cascades, Great Basin, Sawtooth Mountains, Kenai Peninsula, and the Chugach Mountains. Snowpack melting rates accelerated during late April across the Inland West, Oregon, Central Washington and the Kenai Peninsula. Drought intensification and expansion was observed in the Northwest.

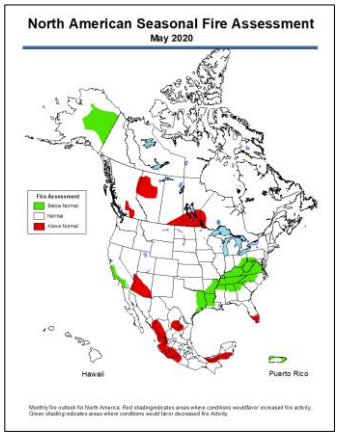
Overall, the entry into the Western fire season is expected to be normal; however, there are areas of concern emerging. While the Pacific Northwest received beneficial precipitation in late April and will continue to do so in early May, the overall pattern has been warm and dry which may be problematic for Oregon and Washington. Northern California and the Great Basin area are also areas to monitor closely for Above Normal significant wildland fire potential as fuels continue to dry and cure. Additionally, fine fuel loading is expected to be above average for the third consecutive year in the lower elevations. Those fuels will dry and cure, becoming receptive to fire by mid-June.

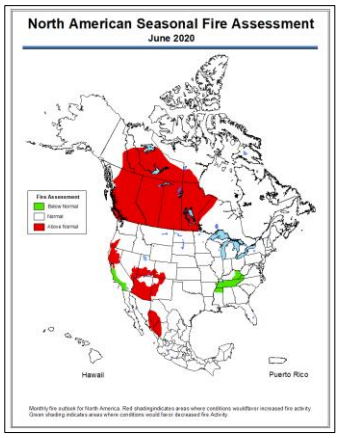
Other locations across the West and in Alaska can expect overall Normal conditions, though there could be pockets of Above Normal potential and activity along the Mexican Border in May and June before the anticipated arrival of a moderate monsoon in early July which should diminish fire activity in the Southwest.

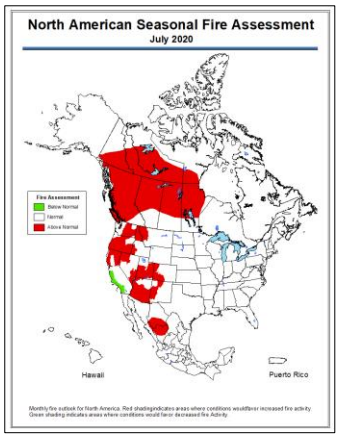
The ridge that dominated the eastern Pacific and western British Columbia through the first half of April broke down and allowed Pacific air to flood across western Canada. Snow melted rapidly in some areas, leading to local flooding, although some snow cover is still present between northern Manitoba and Labrador. Southern parts of the central and eastern provinces have been snow-free for a few weeks. Ridging is once again becoming established over British Columbia and Yukon, with much above normal temperatures expected in Yukon. This pattern is allowing a large, cool, and dry Arctic air mass to cover most of central Canada. Conditions have been variable across eastern regions.

Precipitation was above normal across eastern, central, and southern Mexico due to the passage of two, slow-moving cold fronts that drifted south across the country. Drier than average conditions were observed along the border with the United States and in the western states. Looking forward, these conditions are expected to continue through May before moderating in June and July.

Critical Factors The critical factors influencing significant fire potential for this outlook period are:







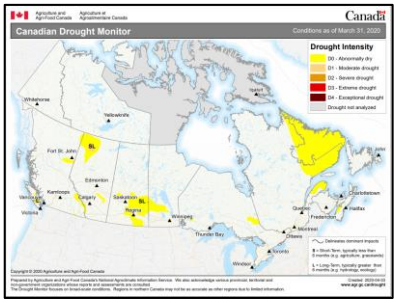
Monthly fire outlook for North America for May 2020 (left), June 2020 (middle), and July 2020 (right). Red shading indicates areas where conditions would favor increased fire activity. Green shading indicates areas where conditions would favor decreased fire activity. *Click on each image to see larger versions.*

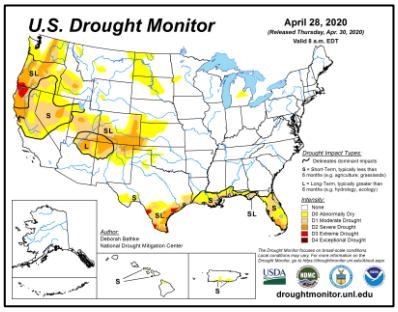
El Niño-Southern Oscillation: Sea surface temperature (SST) anomalies along the equator indicate that warmer than average but still ENSO Neutral conditions continued through month's end across the equatorial Pacific Ocean at the surface. However, both temperatures at the surface and beneath the surface waters were beginning to cool. Some evidence of this is surfacing in the waters just west of Ecuador and Peru. Temperatures in the western Pacific also began to show signs of cooling. In comparison to the last several months data, little has changed with respect to ENSO.

The outlook for ENSO calls for a continuance of neutral conditions into June and possibly July. Overall temperature trends should continue to decrease. When comparing trends in past months' model data, the models continue to uniformly trend toward cooler conditions at earlier dates. As a result, confidence is increasing that a weak La Niña may gradually develop by early fall.

Drought: Drought continued to intensify and expand across the northwestern portion of the United States as the dry conditions amplified. Moderate to Severe drought conditions continued across the Four Corners into southeastern Colorado. The drought across Florida peaked early in the month and began to recede across most of the state as precipitation events became more frequent. An exception to this was southwestern Florida where the hot and dry conditions lingered. South Texas also showed slight improvement in its drought.

Spotty abnormally dry conditions exist across Canada, with the largest areas in northwestern Alberta, across the southern Saskatchewan/Manitoba border, and a growing area west of Lake Superior. Persistent abnormally dry to moderate drought in northwestern Alberta is concerning, as large fires burned there in 2019. Small patches of moderate drought are also present in southeast Saskatchewan and west of Lake Winnipeg in Manitoba. The large abnormally dry patch that dominated Labrador and eastern





Top: Canadian Drought Monitor for 31 April 2020 (from *Agriculture and Agri-Food Canada*). **Middle:** United States Drought Monitor for 28 April 2020 *(from U.S. National Center for Environmental Information).* **Bottom:** Mexican Drought Monitor for 30 April 2020 *(from CONAGUA-Servicio Meteorológico Nacional).*

Quebec in March has shrunk. This strip now lies between central Labrador and Quebec west of the Great Northern Peninsula, which forms the northwest corner of the island of Newfoundland.

As of 30 April, in Mexico, severe drought conditions continued across northeastern Mexico near the border with the United States. Slight drought intensification was observed across the Yucatan Peninsula, especially along the Caribbean Coast. Slight expansion of Abnormally Dry conditions were observed across Oaxaca and across states adjacent to it.

Fire Season Status: As of April 30, Canada reported fire activity that was 70% of average for number of fires and less than 10% of average for area burned.

The number of wildfires occurring in the United States was limited to those occurring during short-term weather events along and east of the Continental Divide. Through May 5, 12,736 wildfires burned 105,209 hectares (259,976 acres). This is below the 10-year average of 17,931 wildfires that burn 367,459 hectares (908,013 acres).

Fire activity in Mexico remains low. Year-to-date fire statistics for the country show 2,177 fires across 29 states that burned a total of 86,972 hectares (214,912 acres) which is well below the 10-year mean.

Canada Discussion

May/June/July: This year will be a special case in fire season histories. With Canadian provinces and territories generally implementing restrictions on outdoor burning and recreational activity due to Covid-19, human-caused fire numbers may be low. The restrictions are intended to reduce fire activity and smoke, and allow modified seasonal preparations designed for smaller groups. As of early May, the number of fires are about 70% of normal and area burned is less than 10% of normal. While seasonal fire weather index calculations have started in most of western Canada, snow cover still persists in northern parts of the provinces from Manitoba through Labrador. This is expected to slowly disappear over the remainder of May, allowing gradual fire season startup in these areas.

During May, small parts of western Canada may experience above normal fire severity. These areas include the southern Chilcotin and Fraser valley in British Columbia, the northern British Columbia/Alberta border area, and southeast Saskatchewan and southern Manitoba. Since human activity during the Covid-19 pandemic will likely be reduced, fire activity may be lessened as most is human-caused at this time of year.

Most models predict warm temperatures to begin covering large portions of Canada in June. Current weather patterns in May are resulting in dry conditions in the northern Prairie Provinces and Northwest Territories. If this continues it may lead to problems in late May and June when lightning activity normally increases. While a large area of western Canada is depicted with above normal severity, actual fire activity still depends on ignitions. Human-caused fires may be reduced under Covid-19 restrictions on open burning and recreational activity, and if lightning activity is low in dry air masses, then ignitions may be less than normal. A portion of central Alberta and Saskatchewan may receive enhanced rainfall which would inhibit fire activity.

While once again most of western Canada is expected to have an increased risk of fire, actual numbers depend on the status of Covid-19 restrictions. This is unknown at the time and depends on individual provinces' and territories' relaxation of restrictions and economic reopening strategies. Regarding weather influences, warm weather is expected in much of Canada, and the latest rainfall predictions favor dry conditions in British Columbia, Alberta, and the Northwest Territories. This pattern is expected to produce the greatest potential impact in northern parts of the western provinces and the Territories where lightning accounts for the majority of fire starts.

United States Discussion

May/June/July: April presented an active weather pattern across the southwestern states during the first half of the month as several well-developed weather systems moved inland through California and across the Four Corners. By mid-month, most of the southern half of the state had received at least 800% of average precipitation. The border country with Mexico missed the precipitation associated with the passing systems to the north. Across the Northwest, frequent weak high pressure ridge events produced conditions that were drier than average. Locations east of the Cascade Crest received less than 25% of average precipitation during the period. Occasionally warm periods initiated the melting of the mountain snowpack. A pattern change occurred the final week of the month as the seasonal weather pattern shift began to occur. High pressure developed over the Southwest and led to a warm and dry period. An active late spring weather pattern developed across the Northwest; wet cold fronts began to impact the region. The hot, dry, and periodically breezy periods across Florida were replaced by wetter conditions. South Texas experienced relief due to influxes of moisture moving north from the Gulf of Mexico as systems passed by to the north. Dry conditions across the Carolinas and Virginia were replaced by periodically wet conditions. The interior of Alaska continued to experience average precipitation as did the south central portions of the state, though precipitation fell as rain late in the period due to warming temperatures.

May is the transitional period into the Western Fire Season. Overall, the entry into the season is expected to be normal; however, there are areas of concern emerging for the summer months. While the Pacific Northwest received beneficial precipitation in late April, the overall pattern has been warm and dry which may be problematic for Oregon and Central through Eastern Washington. Northern California and the Great Basin area are also areas to monitor closely for Above Normal significant wildland fire potential as fuels continue to dry and cure. Additionally, fine fuel loading is expected to be above average for the third consecutive year in the lower elevations. Those fuels will dry and cure, becoming receptive to fire by mid-June.

Other locations across the West and in Alaska can expect overall Normal conditions, though there could be pockets of Above Normal potential and activity along the Mexican Border in May and June before the anticipated arrival of a moderate monsoon in early July which should diminish fire activity in the Southwest while increasing activity further north across the Great Basin, Northern California, the Pacific Northwest, and the Northern Rockies by July.

Mexico Discussion

May/June/July: Above normal precipitation is expected across the states of Nuevo León, Tamaulipas, central San Luis Potosí, Mexico City, Morelos, Tlaxcala, Puebla, eastern Oaxaca, southern Veracruz and western Chiapas. Below normal precipitation is expected across the central south of Baja California Sur, western Chihuahua, and northern and western Coahuila. Other states not mentioned can expect normal precipitation during the outlook period. Overall, above normal temperatures are expected across the entire country except the center and south of Baja California Sur, the slope of the Gulf of Mexico and the region of the South Pacific where temperatures should be near normal.

Above normal significant large fire potential in May is expected across the southern Yucatan Peninsula and along the southern Gulf Coast. Mountains and lowlands along the central Pacific Coast and across portions of northeastern Mexico can expect above normal fire potential. In June and July, above normal potential will exist across forested areas of the Northwest. Other regions can expect normal fire potential during the outlook period.

Additional Information

Additional and supplemental information for this outlook can be obtained at:

United States:

National Significant Wildland Fire Potential Outlook
http://www.predictiveservices.nifc.gov/outlooks/monthly_seasonal_outlook.pdf

Canada:
Canadian Wildland Fire Information System
http://cwfis.cfs.nrcan.gc.ca/home

Mexico:
Servicio Meteorológico Nacional
http://smn.cna.gob.mx/index.php?option=com_content&view=article&id=156&Itemid=113

Outlook Objective

The North American Seasonal Fire Assessment and Outlook is a general discussion of conditions that will affect the occurrence of wildland fires across Canada, the United States, and Mexico. Wildland fire is a natural part of many ecosystems across North America. This document provides a broad assessment of those factors that will contribute to an increase or decrease of seasonal fire activity. The objective is to assist wildland fire managers prepare for the potential variations in a typical fire season. It is not intended as a prediction of where and when wildland fires will occur nor is it intended to suggest any area is safe from the hazards of wildfire.

Acknowledgements

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